

see that this ditch has not cost me, even at a dollar a day wages for the men, and two dollars for the horses, quite 25 cents a row; and we have moved from three to four times as much earth as we could have done with spades and shovels, besides doing it for all time, for this will never founder or be trampled in by cattle, and all it can ever want again is a double furrow in the bottom of it, and generally a single turn water furrow will be sufficient. Besides, at the above rates you will see that we have earned excellent wages, although of course we don't found much on that."

I enquired the shape of his scrapers.

He said they were of the ordinary kind, square across the edge and wide, so that they would take up *moval* earth.

I suggested a scraper made half circular like a sugar scoop, such as is used by grocers, with a sharp cutting steel edge.

My friend caught at the idea, said that a machine of that kind would work well, and would face any ordinary ground, without ploughing, so that he could complete the work as he went, and be always working against a breast of earth; besides, he could finish the sides much better, as he could trim off small places which required it, and it would be saving the going over the ground a second time. If he could have found such a scraper, he would have purchased one at once; but as my circular scraper was only an *ideal* one, I could not recommend him to a manufacturer. I have no doubt, however, he will eventually get one made.

This was a hard-working, well-doing man, who has rendered himself independent as a farmer, and has settled a large family prosperously. He was, I believe, originally an English labourer, who came to Canada to "better" himself, and he has succeeded.

VECTIS.

Harvesting Turnips.

To the Editor.

SIR,—Notwithstanding "C's" condemnation of those who still adhere to the old fashion of topping and tailing turnips, I am not yet brought over to his way of harrowing them. I will concede that his plan is more expeditious than the old-fashioned way; but it is, to say the best of it, but a dirty job. I have never yet seen the harrow so constructed, or so used, that it will lay the turnips in rows. Moreover, no harrow will pull *all* the turnips out.

The only point that can be urged against topping and tailing is the comparative slowness of lifting; but when they are once lifted, every other after process of storing is lightened and quickened.

The following reasons may with justice be urged against the process of harrowing up turnips:

1. The lightest is that the tops are thus rendered unavailable (if the cattle be fed in another place), and made very dirty for stock even when the latter are turned upon the field.

2. Until "C." can show us his plan of manipulating harrows so that they will be made to leave the roots in rows, or an invention such as he passingly alludes to be brought out, I do not think it possible either to place

the roots in rows, or to avoid leaving a great many turnips still fast in the ground.

3. The time taken in collecting these roots is nearly half as long again as when they lie in top and tailed heaps.

4. A great number are invariably left upon the ground, hidden by the bunches of leaves with which the harrows have covered them.

5. Not one man in a hundred will pass over a number of rows with a sharp hoe without leaving many leaves attached to the bulbs and cutting *into* many turnips. When brought to the cellar, about three inches of mould will invariably be found at the bottom of the cart, which, together with that upon the roots, must be dumped in. If carried in a waggon, and the roots thrown down a shoot, where the shovel is used for unloading (and surely "C." would not like the *slow* process of unloading by hand), the same amount of dirt is thrown in, which, owing to the fact that it adheres to the uncut roots of the turnips, will also be carried down into the cellar.

6. The roots with their tails on do not roll freely down a shoot, and require a steep incline to roll at all; indeed, so bad is the process in this way that when taken in thus I have invariably had to employ an *extra* hand in the cellar to keep the shoot clear.

"C." says "there are, however, some dunderheads," * * and for these people pulling up turnips with one hand, chopping off the greens with a knife with the other, allowing the turnips to lie just where they fell or grew, scattered all over the field, again to be picked up by a basket and by help of a second man lifted into a waggon, which stands about twenty yards into the turnip patch," &c., &c.

This shows that the writer either knows nothing whatever about the proper process of topping or tailing, or has wilfully misrepresented the usual plan in order to make his own way appear more feasible.

Far from allowing the root to lie just where it grew, at the same moment the green is cut off the root is jerked into a pile, and these piles are made in a continuous line in the middle of each four rows, i.e., about eight feet apart, thus enabling a waggon to drive between two rows, from each of which the turnips are thrown about one yard into the box.

As to first putting the turnips into a basket, I must confess, awkwardly as I have seen some people manage their turnip harvest, I have never come across a "dunderhead" who would deliberately and without rhyme or reason make such a piece of work as that for himself.

It is quicker to make a road with dirt at hand than to draw gravel a mile, to set posts in the ground one foot than three, to horse-rake peas than pull them with the scythe; but I leave it to any good farmer which are the better of these plans.

Quickness is a point to be striven after in all operations upon the farm; but when rapidity interferes with thoroughness of execution, I think it is a mistake.

"What is worth doing is worth doing well," may be proved by many similar proverbs and platitudes, and by daily observations of the ways of successful mechanics, tradesmen or farmers.

Until "C." can show me a quicker plan that is not subject to the objections that I take against *harrowing up*, I shall be content to write myself, in his opinion, an "old-fashioned, dull-headed plodder," and

"DUNDERHEAD."

Stock Department.

Economizing Food for Stock.

The probabilities for next winter (now soon to set in), are dear hay, and straw scarce, although of excellent quality. It is many years since such beautiful white straw was harvested.

In some localities hay will be *very high*. The price in prospect is even now felt, as cows are offered at prices much below average. I allude to stock cows, not those fresh calved, although these are comparatively easy in price. As a general rule, when wheat is high, hay is likewise dear. Experience shows this fact, even when there is an abundant crop, instead of, as is the case this season, when the yield per acre is very light.

The great improvement in the manufacture of cutting boxes in Canada is now well established, and the improved construction and increased strength of the various parts, surpass probably at the price any in the world, not excepting even England, where these things are usually particularly well done.

The fact is, that for some years past competition in manufacturing agricultural machines of all kinds has so spurred the makers that whilst on the one hand the quality of the article is vastly improved, the price is at the same time much lowered.

Many cutting machines now exist that will cut the straw almost as fast as four horses can thrash the wheat.

Still, with all these advantages, much difference of opinion exists as to the benefits to be derived from cutting straw for fodder under any circumstances. Many deny there is any profit to it, whilst others always use a cutting box on their farm; but the fact is, that if cattle are fed with cut straw alone, taken from a straw stack, as they are usually built out of doors, without shelter of any kind, such fodder really amounts to comparative starvation, and certainly although cattle may exist on such food, they never can thrive. In this class of feed; when cut up, the cutter often gets the blame as being useless and all waste time; and men who give such opinion ought to know that the blame rests with the quality of the feed cut, and is not in any way due to the cutting *per se*. I have often seen well-doing farmers cutting up a lot of bad hay with straw, or, as the case may be, bad straw with hay, in order to thereby force the consumption of the inferior portion; and when cattle refuse it, the cutting alone is blamed; whereas the fact is the poor brutes cannot so well select the good portion from the bad, and consequently they refuse the whole.

If cattle are fed on chopped straw, of good quality, mixed with pulped turnips, they will winter on two-thirds the quantity, and will be in far better condition